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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: David W. Quint, et al.

: Group Art Unit: 2827

U.S. Serial No.: 09/977,595

: Examiner: Ishwar Patel

Filed: October 12, 2001

: Docket: 10007154-1

Confirmation No. 2761

Title: **PGA CHIP PACKAGE AND PROCESS FOR SAME**

Assistant Commissioner for Patents  
Washington, D.C. 20231

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**RESPONSE TO OFFICE ACTION**

Sir:

In response to the office action mailed January 31, 2002, please amend the above-identified patent application as follows:

**In the Claims:**

~~Please cancel claims 12-22.~~

**REMARKS**

Claims 1-11 and 23-25 are pending in this application.

**Notes 1-5.**

Applicant confirms the provisional election made with the Examiner via telephone on January 15, 2002 to prosecute group 1, claims 1-11 and 23-25. At this time, applicant requests the Examiner to cancel non-elected or withdrawn claims 12-22 drawn to the process of the invention. A divisional application has been filed simultaneously under separate cover.

**Note 6.**

The Examiner has "objected" to the drawings for the use of improper hatching.  
Proposed drawing corrections are attached herewith for the Examiner's approval.

**Note 7.**

The Examiner objected to the specification on page 10, lines 12-14 and page 13, line 7. The applicant respectfully disagrees that any correction is necessary and requests the Examiner to provide technical documentation that stipulates such text is in error.

**Note 8 & 9.**

The applicant disagrees with the Examiner's 112 rejections to claims 4, 5, 8 and 25. These dependent claims further limit independent claims 1 and 23 by stipulating that the spring pins must be able to expand or contract or change shape, which would imply that the material used or the means for attaching the pins can not allow the pins to be so rigid that the same can not occur. *done*

**Note 10-15.**

The applicant disagrees with the Examiner's 102 & 103 rejections <sup>to the claims</sup> with reference to prior art by Simpson. Simpson provides a structure that requires the pins 22 to extend through the substrate 16 before coupling to the board 10. This type of structure is very complicated and expensive to implement. *and claim 23 done*

In contrast, the present invention as recited in claim 1 provides:

"a substrate coupled between the chip and the plurality of spring pins; and a PCB coupled to the plurality of spring pins".

Therefore, the pins of the present invention do not pass through the substrate, but rather attach to a contact pad 28A on the substrate. This allows the pin to be bent before

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or after being attached to the substrate, which allows for the shape and size of the pin to vary at any time during the manufacturing process and reduces the process for the same.

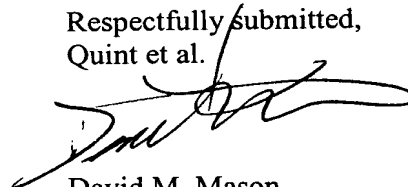
At this time, the applicant respectfully requests that the above election and argument are entered into the record and a timely notice of allowance is issued in this case for all pending claims.

Please do not hesitate to contact the undersigned council for this application if the Examiner has any questions regarding this case.

Date: May 31, 2002

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Respectfully submitted,  
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#### CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to the Commissioner for Patents, Washington, D.C. 20231, on 5/31/02

By   
Jerry Flores

Date: 5/31/02